

RESIDUE MANAGEMENT, SEASONAL

(acres)
CODE 344

Natural Resources Conservation Service
Conservation Practice Standard

I. Definition

Managing the amount, orientation, and distribution of crop and other plant residues on the soil surface during part of the year, while growing crops in a clean tilled seedbed.

II. Purpose

This standard may be applied as part of a conservation management system to reduce inter-rill, rill and wind erosion and provide food and cover for wildlife.

III. Conditions Where Practice Applies

This practice applies to all cropland and other land where crops are grown.

This standard includes residue management methods practiced during part of the year from harvest until residue is buried by tillage for seedbed preparation.

IV. Criteria

- A. Residue which is to be retained on the soil surface, shall be uniformly distributed over at least 80% of the equipment harvesting width. Planned amounts shall be maintained from harvest until just before planting operations.
- B. Residues shall not be burned
- C. The amount and vertical orientation (for wind erosion) of residue needed to reduce erosion within the soil loss tolerance (T), or any other planned soil loss objective, such as crop tolerance, shall be done in accordance with the Field Office Technical Guide, Section I, Erosion Protection. Calculations shall account for the effects of other practices in the conservation management system.

- D. Partial removal of residue by means such as baling or grazing shall be limited to retain the amount determined in IV. C.
- E. Estimating percent flat residue cover shall be done using the line-transect method according to UWEX Publication A3533. Estimating percent vertical residue shall be in accordance with other acceptable procedures.
- F. Tillage that occurs during the seasonal residue management period shall be limited to methods which leave residue on the surface and maintain the planned cover conditions.
- G. When residue is provided for food and cover for wildlife, residues shall not be removed and tillage shall be delayed until the end of the seasonal residue management period.

V. Considerations

- A. When planting on a clean seedbed, exposure to erosion can be minimized by completing tillage and planting in a single operation, or by performing primary tillage no more than three days before planting.
- B. Consider the selection of high residue producing crops and crop varieties in the rotation, cover crops, adjustments of plant populations, and row spacing to enhance production of adequate amounts of crop residue.
- C. Consider integrating no till, strip till, or mulch till as part of the conservation management system.
- D. Consider tilling and planting across the slope or perpendicular to prevailing winds.

VII. Plans and Specifications

Specifications for establishment and operation of this practice shall be prepared for each field or treatment unit according to the Criteria and Considerations described in this standard.

Specifications shall be recorded using approved specification sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation.

VIII. Operations and Maintenance

No operation and maintenance requirements have been identified for this practice.

IX. References

Moldenhauer, W.C., and Mielke, L.N., Crop Residue Management to Reduce Erosion and Improve Soil Quality, North Central, Conservation Report Number 42, (United States Department Agriculture, Agriculture Research Service, November 1995).

USDA, Natural Resources Conservation Service, Estimates of Residue Cover Remaining after Single Operation of Selected Machines, Technical Note-Agronomy-WI-4, (USDA NRCS, December 22, 1993).

Wollenhaupt, N.C., and J. Pingry, Estimating Residue Using the Line Transect Method. University of Wisconsin-Extension, Bulletin A3533